

ILV

Institut Lavoisier de Versailles

ELEMENTAL ANALYSIS (ICP-OES, AAS)

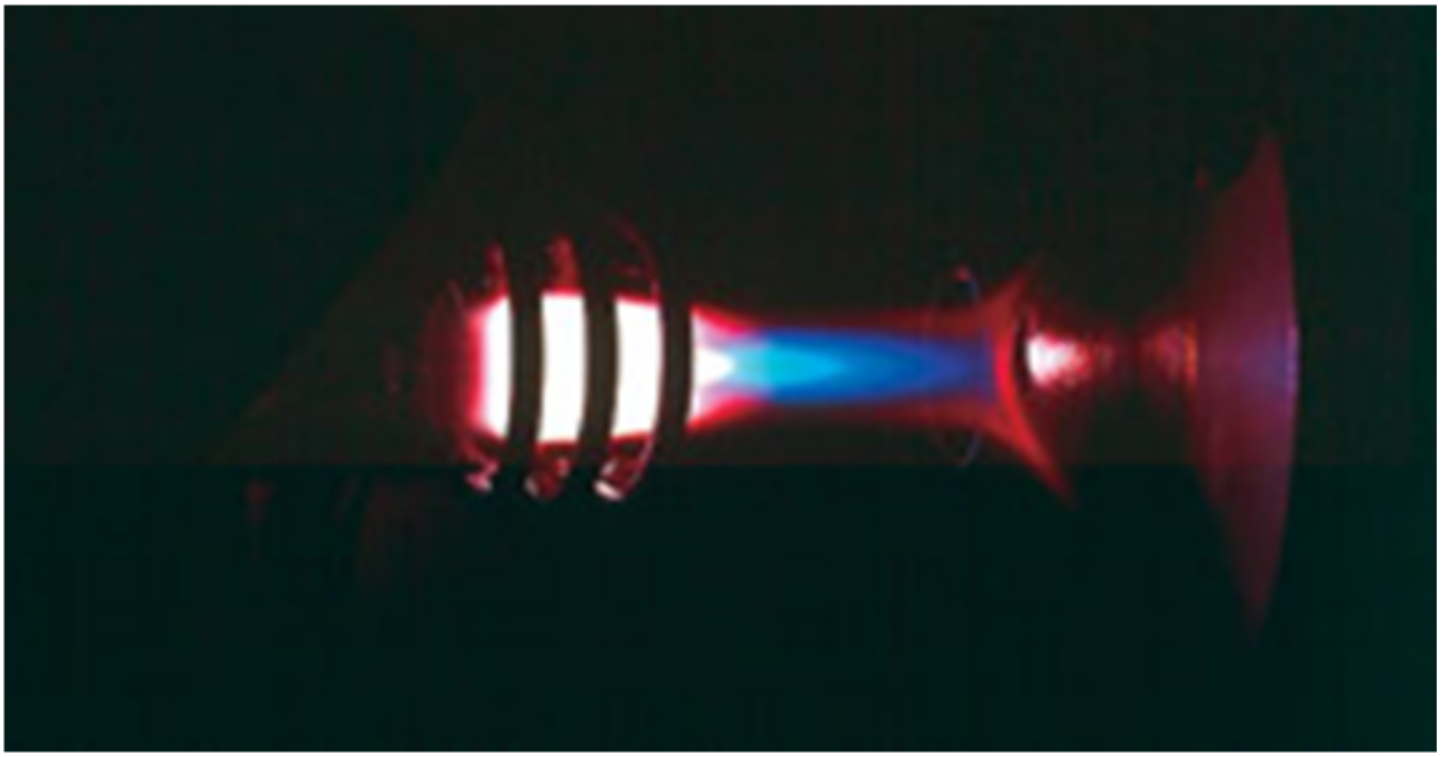
ICP

The Lavoisier Institute of Versailles is equipped with an inductively coupled plasma optical emission spectrometry apparatus (Agilent 720 Series ICP-OES).



CP-OES allows:
- a quick analysis of almost all elements of the periodic table
- the analysis of trace compounds with extremely low detection limits (of the order of g / L in dissolved phase and less than mg / kg in solid phase)
- quantitative analyzes
- complex matrix analyzes

The large dynamic range allows the ICP-OES to be able to analyze both major elements and trace elements during the same analysis without having to proceed to several dilutions. The robustness, multi-elemental character and high linearity of the ICP-OES measurement range mean that it covers a very wide range of applications; the analyzes can be carried out in very diverse types of samples (aqueous liquids or organic solvents, solutions loaded with dissolved salts, metal alloys, organic matrices, etc.) for environmental applications (soil, freshwater or water analyzes). seawater), in agribusiness (analyzes in the chemical and pharmaceutical industry, in metallurgy, but also in plants, organic tissues, wine)



Observable elements

ICP-OES

Limites de Détection 720/730-ES Visée Axiale

Nébuliseur Ultrasonique

H																	He
Li 0.06	Be 0.003											B -	C	N	O	F	Ne
Na 0.015	Mg 0.002											Al 0.07	Si 0.7	P 0.4	S 4.0	Cl	Ar
K 0.1	Ca 0.01	Sc 0.006	Ti 0.015	V 0.01	Cr 0.025	Mn 0.005	Fe 0.02	Co 0.05	Ni 0.06	Cu 0.04	Zn 0.02	Ga 0.15	Ge 0.29	As 0.4	Se 0.8	Br	Kr
Rb 0.4	Sr 0.002	Y 0.01	Zr 0.01	Nb 0.04	Mo 0.04	Tc	Ru 0.08	Rh 0.07	Pd 0.16	Ag 0.04	Cd 0.012	In 0.28	Sn 0.15	Sb 0.3	Te 1	I -	Xe
Cs	Ba 0.002	La 0.03	Hf 0.04	Ta 0.1	W 0.2	Re 0.80	Os 0.90	Ir 0.1	Pt 0.15	Au 0.1	Hg 0.3	Tl 0.13	Pb 0.15	Bi 0.3	Po	At	Rn
Fr	Rd	Ac															
			Ce 0.15	Pr 0.09	Nd 0.13	Pm	Sm 0.05	Eu 0.02	Gd 0.05	Tb -	Dy 0.03	Ho 0.04	Er 0.06	Tm 0.03	Yb 0.003	Lu 0.004	
			Th 0.07	Pa	U 0.3	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr	

X
LD

LD : Limite de détection en µg/L à 3 x s_{blanc}

S_{blanc} = écart-type du blanc sur 10 prises d'essai identiques dans des conditions de répétabilité.

THE BASIC ANALYSIS SERVICE OF THE LAVOISIER INSTITUTE IS OPEN TO THE ENTIRE SCIENTIFIC COMMUNITY.

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